- (g) A copy of the RFS fuel producer co-products report; and
- (h) A life cycle analysis report that describes the fuel pathway and describes in detail the calculation of carbon intensity for the fuel. The report shall contain sufficient detail to allow staff to replicate the carbon intensity the applicant calculated. The applicant must describe all inputs to, and outputs from, the fuel production process that are part of the fuel pathway. The report must include a list of references covering all information sources used in the calculation of refinery investment credit. All reference citations in the application shall include standard in-text parenthetical citations stating the author's last name and date of publication. Each in-text citation shall correspond to complete publication information provided in the list of references. Complete publication information shall at a minimum, identify the author(s), title of the referenced document (and of the article within that document, if applicable), publisher, publication date, and pages cited. For internet citations, the reference shall include the universal resource locator (URL) address of the citation, as well as the date the web site was last accessed.
- (6) **Applicants seeking a provisional carbon intensity**. If a fuel production facility has been in full commercial production for at least 90 days but less than 24 months, it can apply for a provisional carbon intensity.
 - (a) The applicant shall submit operating records covering all periods of full commercial operation in accordance with subsections (2) through (5).
 - (b) Ecology may approve the provisional carbon intensity under subsection (9).
 - (c) At any time before the plant reaches a full 24 months of full commercial production, Ecology may revise as appropriate the operational carbon intensity based on the required ongoing submittals or other information it learns.
 - (d) If, after a plant has been in full commercial production for more than 24 months of full commercial production, the facility's operational carbon intensity is higher than the provisionally-certified carbon intensity, Ecology will replace the certified carbon intensity with the operational carbon intensity in the Oregon Fuels Reporting System and adjust the credit balance accordingly.

(e) If the facility's operational carbon intensity appears to be lower than the certified carbon intensity, Ecology will take no action. The applicant may, however, petition Ecology for a new carbon intensity that reflects the operational data. In support of such a petition, the applicant must submit a revised application packet that fully documents the requested reduction.

(7) Applicants employing co-processing at a petroleum refinery.

- (a) Applicants employing co-processing of biogenic feedstocks at a petroleum refinery must submit all information required under sections (3) and (5). Additionally,
- (b) For the renewable diesel or other renewable refinery product of the fuel, the applicant must also submit:
 - (i) The planned proportions of biogenic feedstocks to be processed;
 - (ii) A detailed methodology for the allocation of biogenic feedstocks to the renewable products; and
 - (iii) The corresponding carbon intensities from each biogenic feedstock.
- (c) The allocation methodology for associating amount of the biogenic feedstocks to the production a unit of fuel will be subject to Ecology approval and may be modified at Ecology's discretion based on ongoing quarterly reporting of production data at the refinery.
- (d) Ecology may adjust the carbon intensities applied for under this section as it determines is appropriate.

(8) Temporary Fuel Pathway Codes for Fuels with Indeterminate Carbon Intensities.

- (a) A regulated party or credit generator that has purchased a fuel without a carbon intensity must submit a request to Ecology for permission to use a temporary fuel pathway code:
 - (i) Already exist in Table 9 under WAC 173-424-TBLE, or
 - (ii) Ecology newly approved and posted on its website under subsection (11).
- (b) The request must:
 - (i) Be submitted within 45 days after the end of the calendar quarter for which the applicant is seeking to use a temporary fuel pathway code; and

- (ii) Explain and document that the production facility is unknown or that the production facility is known but there is no approved fuel pathway code.
- (c) Temporary fuel pathway codes may be used for up to two calendar quarters. If more time is needed to obtain a carbon intensity, the party that obtained the temporary fuel pathway must submit an additional request to Ecology for an extension of the authorization to use a temporary fuel pathway code.
- (d) If Ecology grants a request to use a temporary fuel pathway code, credits and deficits may be generated subject to the quarterly reporting provisions in WAC 173-424-QR.
- (9) Approval process to use carbon intensities for fuels other than electricity.
 - (a) For applications proposing to use fuel pathways approved by CARB or OR-DEQ, including provisional pathways, Ecology will:
 - (i) Confirm that the proposed fuel pathway is consistent with WA-GREET 3.0; and
 - (ii) Review the materials submitted under subsection (2).
 - (b) For applications proposing to use the Tier 1 or Tier 2 calculators, Ecology may approve the application if it can:
 - (i) Verify the energy consumption and other inputs.
 - (ii) Replicate the calculator outputs; and
 - (c) If Ecology has approved or denied the application for a carbon intensity, Ecology will notify the applicant of its determination.
 - (d) Ecology may impose conditions in its approval of the carbon intensity. Conditions may include specific limitations, recordkeeping or reporting requirements, adherence to protocols to assure carbon reduction or sequestration claims, or operational conditions that Ecology determines should apply to assure the ongoing accuracy of the approved carbon intensity. Failure to meet those conditions may result in the carbon intensity approval being revoked.
 - (e) For applicants seeking a provisional pathway, Ecology will specify the conditions used to establish the pathway.

- (i) In order to maintain an active provisional pathway eligible to generate credits, the applicant must file the annual fuel pathway report and seek third-party verification if required under WAC 173-424-3PV.
- (ii) At any point during the 24 months following the certification of a provisional pathway, Ecology may revise as appropriate the CI score for the provisional pathway, and adjust any credits in the fuel reporting entity based on new information or a better understanding of the pathway.
- (iii) Ecology may remove the provisional status of the pathway after the applicant provides 24 months of operational data with a positive or qualified positive verification status.
- (iv) For pathways that are not subject to verification, Ecology may remove the provisional status upon review of 24 months of operational data demonstrating that the pathway data supports the provisional CI.
- (f) For a fuel pathway approved by CARB or OR-DEQ that Ecology has approved for use in Washington, if at any time the pathway's approval is revoked by CARB or OR-DEQ then:
 - (i) The fuel pathway holder must inform Ecology within seven days of the revocation and provide Ecology with the documentation related to that decision.
 - (ii) Upon Ecology request, the fuel pathway holder must provide to Ecology additional documentation.
 - (iii) Ecology may at its discretion revoke its approval of the pathway's use in Washington at any time.
 - (iv) If CARB or OR-DEQ modifies its approval of the pathway then the fuel pathway holder must notify Ecology of the modification not later than 14 days after CARB's or OR-DEQ modification and must provide to Ecology any accompanying documentation the fuel pathway holder received from CARB or OR-DEQ.
 - (v) Based on the underlying facts that led to CARB's and OR-DEQ's modification of the pathway's status, within 30 days Ecology may modify its approval, take no action,

- or revoke its approval and will provide the fuel pathway holder with written notice of its decision.
- (g) In order to receive and maintain an active fuel pathway code, the producer of any fuel must:
 - (i) Maintain an active registration with the AFP;
 - (ii) Provide proof of delivery to Washington through a physical pathway demonstration in the quarter in which the fuel is first reported in the Washington Fuels Reporting System;
 - (iii) Beginning in calendar year 2026, [DD(50]each fuel pathway holder must submit an annual fuel pathway report into the AFP no later than March 31st of each calendar year. The annual fuel pathway report must include:
 - (A) The certified version of the simplified WA-GREET or full WA-GREET calculator, as applicable, updated to include the most recent two calendar years of operational data;
 - (B) The annual fuel pathway report for renewable electricity and hydrogen lookup table pathways, in lieu of the CI calculator, must include invoices or metering records substantiating the quantity of renewable or low-CI inputs procured from a qualifying source.;
 - (C) If the fuel or fuel production process involves biomethane or renewable electricity, the fuel producer must provide the attestation regarding environmental attributes or proof of non-generation or retirement of any RECs as required by WAC 173-424-SRR(2)(e) or WAC 173-424-DCIE(4)(d);[DD(51]
 - (D) Any fuel pathway holder, including a joint applicant, who is not subject to site visits by a third party verifier, whose pathway involves the use of renewable or low-CI process energy, must submit invoices for that energy to the AFP. Additionally, for any on-site or directly connected renewable electricity that is used to reduce the carbon intensity of electricity used as a transportation fuel or hydrogen production via electrolysis, the pathway holder must upload

- records demonstrating that any renewable energy certificates generated were retired in WREGIS or another comparable [DD(52], recognized REC tracking system for the purpose of lowering the certified CI, or for credit generation;
- (E) Any temporally-variable information that was requested or required by Ecology to be included in the initial application as supplemental information, or any required data or documentation listed in the pathway's operating conditions. The information required to be submitted under this subsection must cover the same time period as the updated WA-GREET model required under subparagraph (A);
- (F) If the verified operational CI as calculated from the operational data covering the prior two calendar years of production is found to be lower than the certified CI, and a positive verification statement is issued for this period, the fuel pathway holder may elect to keep the original certified CI, or may request to replace the certified CI with the verified operational CI. The pathway holder may elect to add a margin of safety to the new certified CI, and must submit an attestation that the new CI can be maintained through the next reporting period with the acknowledgement that exceeding the newly certified CI in subsequent annual reports or verifications is a violation of the requirements of this division; and
- (G) If the operational CI is found to be greater than the certified CI, the fuel pathway holder is out of compliance with this chapter and may be subject to investigation and enforcement by Ecology;
- (iv) Comply with the requirements of this chapter. Failure to timely submit an annual fuel pathway report or a required verification statement for a facility's pathways will result in the deactivation of those pathways; and
- (v) If a pathway employs carbon capture and sequestration, the fuel pathway holder or joint applicant must submit annual reports of greenhouse gas emissions reductions, project operations, and ongoing monitoring results. Reports must

include measurements of relevant parameters sufficient to ensure that the quantification and documentation of CO_2 sequestered is replicable and verifiable. Ecology may specify a protocol for measuring and reporting such information in its approval of such an application.

- (h) If Ecology determines the proposal for the carbon intensity has not met the criteria in subsection (b), Ecology will notify the applicant that the proposal is denied and identify the basis for the denial.
- (i) Ecology may modify an approved fuel pathway's CI or approval conditions upon receipt of a verification statement that shows that the verified operational CI is higher than the certified CI.
- (j) Any applicant may include a margin of safety in its application which will increase its certified CI in order to account for potential process variability and to reduce the risk that it will violate this division by having its operational CI exceed its certified CI.

(10) Completeness determination process.

- (a) Within 1 month after receiving a registration application using the Tier 1 or Tier 2 calculator, Ecology will advise in writing whether:
 - (i) The proposal is complete, or
 - (ii) The application is incomplete, in which case Ecology identifies the deficiencies.
- (b) The applicant may submits supplemental information to correct the Ecology identified deficiencies. Ecology has 30 calendar days to determine if the supplemental submittal is complete, or to notify the party and identify the continued deficiencies. If the applicant is unable to achieve a complete application within 180 days of Ecology's receipt of the original application, the application will be denied on that basis, and the applicant will be informed in writing.

(11) Issuing additional substitute and temporary fuel pathway codes.

(a) For new fuels or new fuel blends being used in Washington State, registered parties may request Ecology for an additional fuel pathway codes that can be used in the same manner as those in Tables 8 or 9 (substitute or temporary pathway codes) under WAC 173-424-TBLE.

- (b) Ecology may approve such substitute or temporary pathway codes if it concludes they are technically sound and supported by appropriate evidence. If any are approved, Ecology will post these additional pathway codes in the Washington Fuels Reporting System and on its public website for the Clean Fuels Program.
- (c) All of the following requirements apply to such requests:
 - (i) Requests must be made in writing to Ecology.
 - (ii) If Ecology concludes the proposed pathway may be technically sound and supported by appropriate evidence, then it will post the proposed new substitute or temporary pathway codes on its website and take comments for:
 - (A) 14 calendar days in the case of a substitute fuel pathway code; or
 - (B) 45 calendar days in the case of a temporary fuel pathway code.
 - (iii) Ecology will consider any comments received, make any modifications, if necessary, and make a final decision on the proposed pathway.
 - (iv) Ecology may approve the fuel pathway and publish its in its website, if Ecology concludes the proposed pathway is technically sound and supported by appropriate evidence.
- (d) Any newly approved substitute or temporary fuel pathway code will be effective for use in the quarter in which it is approved.

(12) Measurement accuracy.

- (a) **Calibration Requirement**. All measurement devices that log or record data for use in a fuel pathway application must comply with the manufacturer-recommended calibration frequency and precision requirements. If manufacturer-recommendations are not provided, the measurement devices must be calibrated at least every six years.
- (b) Requests to Postpone Calibration. For units and processes that operate continuously with infrequent outages, it may not be possible to meet manufacturer-recommended calibration deadlines for measurement devices. In such cases, the owner or operator may submit a written request to Ecology to postpone calibration or inspection until the next scheduled maintenance outage. Such postponements are subject to the

procedures of paragraphs (A) and (B) below and must be documented in the monitoring plan required under OAR 340-253-0600.

- (i) A written request for postponement must be submitted to Ecology not less than 30 days before the required calibration, recalibration or inspection date. Ecology may request additional documentation to validate the operator's claim that the device meets the accuracy requirements of this section. The operator shall provide any additional documentation to Ecology within ten (10) business days of a request for documentation.
- (ii) The request must include:
 - (A) The date of the required calibration, recalibration, or inspection;
 - (B) The date of the last calibration or inspection;
 - (C) The date of the most recent field accuracy assessment, if applicable;
 - (D) The results of the most recent field accuracy assessment, if applicable, clearly indicating a pass/fail status;
 - (E) The proposed date for the next field accuracy assessment, if applicable;
 - (F) The proposed date for calibration, recalibration, or inspection which must be during the time period of the next scheduled shutdown. If the next shutdown will not occur within three years, this must be noted and a new request must be received every three years until the shutdown occurs and the calibration, recalibration or inspection is completed; and.
 - (G) A description of the meter or other device, including at a minimum the:
 - (I) Make and model,
 - (II) Installation date,
 - (III) Location,
 - (IV) Parameter measured by the meter or other device, including the rate of data capture,
 - (V) Description of how data from the meter or other device is used in a fuel pathway,
 - (VI) Calibration or inspection procedure,

- (VII) Reason for delaying the calibration or inspection,
- (VIII) Proposed method to ensure that the precision requirements listed by the manufacturer are upheld, and
- (IX) The contact details for an individual at the fuel production facility who can answer questions about the meter or other device.
- (iii) Ecology will approve or deny the request at its discretion based on whether or not it concludes that the device's calibration is reasonably reliable.

(13) Missing Data Provisions.

- (a) Meter Record, Accuracy, or Calibration Requirements Not Met. If a measurement device is not functional, not calibrated within the time period recommended by the manufacturer, or fails a field accuracy assessment, the fuel production facility operator must otherwise demonstrate to a verifier or Ecology that the reported data are accurate within +/-5 percent. The following requirements apply to such demonstration:
 - (i) If the operator can demonstrate to the verifier or Ecology staff that reported data are accurate, the data are acceptable. The entity must then provide a detailed plan describing when the measurement device will be brought into calibration. This plan is subject to Ecology approval; and
 - (ii) If the operator cannot demonstrate to the verifier or Ecology that reported data are accurate, the data is not acceptable and the missing data provisions in (b) of this subsection apply.
- (b) **Missing Data Provisions.** If missing data exists, the entity must submit for Ecology approval an alternate method of reporting the missing data. Alternate methods shall be evaluated on a case-by-case basis for reasonableness and continuity with the rest of the dataset. Ecology may choose to require a more conservative approach to the missing data if it is concerned that the alternative method may understate actual life cycle emissions associated with the fuel or fuels produced by the facility.

(c) **Force Majeure Events.** In the event of a facility shutdown or disruption drastically affecting production attributable to a force majeure event, the fuel pathway applicant or holder must notify Ecology.

WAC 173-424-EERCI Energy Economy Ratio-Adjusted carbon intensity applications

- (1) **Energy Economy Ratio-Adjusted CI Applications**. Applications submitted under this section are modified Tier 2 pathway applications under WAC 173-424-OCI.
- (2) **Eligibility**. The following persons are eligible to submit an application under this section:
 - (a) Vehicle owners or operators that would be eligible to generate credits for their vehicles;
 - (b) Manufacturers of vehicles that would be eligible to generate credits may make a joint application with an owner or operator of their vehicles based in Washington; and
 - (c) A single, joint application may be submitted on behalf of, and combining data from, any combination of multiple vehicle owners, operators, and manufacturers.
- (3) Applications made under this rule must be for electric vehicles capable of full normal operation using energy from onboard batteries or fuel cells. [DD(53]
- (4) Application requirements for an Energy Economy Ratio-Adjusted CI. In addition to the application requirements for a Tier 2 pathway application under WAC 173-424-OCI, the applicant or applicants must include:
 - (a) A letter of intent to request an Energy Economy Ratio (EER)-adjusted carbon intensity and why the EER values provided in Table 7 of WAC 173-424-TBLE are not applicable;
 - (b) Supplemental information including a detailed description of the methodology used in its calculations, all assumptions made, and provide all data and references used for the calculation of the proposed EER-adjusted CI value. The methodology used must compare the useful output from the alternative fuel-vehicle technology under consideration to comparable conventional fuel-vehicle technology;
 - (c) If the applicant or applicants plan to use a value in the lookup table in WAC 173-424-TBLE for the carbon intensity of the fuel, or an electricity fuel pathway code issued under WAC 173-424-DCIE, to request an EER-adjusted carbon intensity then they do

not need to provide the fuel facility information required under WAC 173-424-OCI(3)(e) through (h) and (5).

(5) Minimum data requirements to apply for an Energy Economy Ratio-Adjusted CI:

- (a) Any application made under this rule must include at least three months of operating data that represents typical usage for each individual vehicle included in the application, except that the application must cover at least 300 hours [DD(54] of operating data for each individual vehicle included in the application; and
- (b) Notwithstanding subsection (a), an application from a manufacturer may provide data from duty-cycle testing. A manufacturer seeking to apply using duty-cycle testing data must consult with Ecology prior to submitting an application and receive written, advanced approval from the agency for the duration and test cycles it is including in the application in addition to or in lieu of operational data.

(6) Application review process to apply for an Energy Economy Ratio-Adjusted CI:

- (a) Ecology will review an application for completeness, soundness of the assumptions and comparison to the conventional fuel technology, and accuracy of the data. Ecology may deny an application without prejudice if it is incomplete. Ecology may deny any application that it believes is adequately covered by an existing EER value in WAC 173-424-TBLE or that it believes does not fit the intent and purpose of the Clean Fuels Program;
- (b) Ecology may prioritize its review of applications under this provision to those that cover a greater number of entities or that the agency believes are critical to the state's transportation electrification goals;
- (c) If Ecology intends to approve an application, it first must present a review report with a proposed EER value and pathway conditions to the applicant or applicants. If the applicant or applicants accept the proposed review report and EER value, Ecology will post the review report and application on its website for a 30-day public comment period. Ecology staff will work with the applicant to aggregate and summarize any submitted data in order to ameliorate concerns regarding trade secrets included in the

- application. The aggregated data must still allow external stakeholders to understand and replicate the EER value that Ecology is proposing to approve; and
- (d) Based on comments received during the public comment period, Ecology may move forward with approving the application as provided in subsection (7), deny the application, request additional information from the applicant or applicants, or modify the review report. If Ecology modifies the review report or receives additional information that has a material bearing on the proposed EER value, it will issue the modified review report and any affected supplemental materials for another round of public comment.
- (7) Based on its review of the application materials and any comments submitted upon the application under subsection (6), Ecology may issue an EER-adjusted fuel pathway or issue a value that it would post on its website that could be used similarly to the EER values contained in Table 7 of WAC 173-424-TBLE. Values issued under this rule can only be used by the applicant or applicants for that value.
- (8) Adding Joint Applicants after a value is approved. If Ecology has issued a value under section (7) as part of an application that includes the manufacturer of the vehicle(s), owners or operators who begin to operate the same vehicle(s) covered in that application in Washington may request to be added as a joint applicant. In order to do so they must provide the following:
 - (a) A letter from the manufacturer stating that the manufacturer supports the addition of the joint applicant;
 - (b) Any current operational data by the new joint applicant, or other data elements required to be reported under the value's pathway conditions; and
 - (c) A statement by the new joint applicant that they understand and accept any and all pathway conditions associated with the value.

(9) Ongoing reporting requirements.

(a) For any EER-adjusted fuel pathway approved by Ecology under section (7), the applicant for such approval must annually submit vehicle usage and energy consumption data for each individual vehicle using the value approved by Ecology to

- generate credits or deficits in the Clean Fuels Program. Ecology may require additional data elements that must be reported annually as part of its pathway conditions for an application that is approved under this rule.
- (b) Notwithstanding the applicability requirements of third party verification requirements in CARB's LCFS rule 95500-95503 or Chapter 340-272 OAR, as applicable, for any EER-adjusted fuel pathway approved by Ecology under section (7), Ecology may require third party verification of the annual fuel pathway report submitted by the applicant or joint applicants for such approval. If Ecology determines that third party verification is required, Ecology will include that as a pathway condition presented to the applicant or applicants under this section as part of its approval of such fuel pathway.
- (10) Modifications to values issued under this rule. Based on the ongoing reported data required under section (9) or additional applications for vehicles that Ecology determines to be in the same category, Ecology may modify any value issued under this provision for reporting beginning with the next full calendar quarter following its notice that the agency is modifying the value. Ecology will provide notice to the applicant(s) for such fuel pathway prior to doing so, and may request comment from them and the public prior to modifying the value.

WAC 173-424-DCIE Determining the Carbon Intensity of Electricity

- (1) **Utility-Specific electricity mix**. The carbon intensity of the electricity used in a utility service area is calculated based on the mix of resources the electricity used to generate the electricity used using the most recent year fuel-mix report published by the Washington Department of Commerce under RCW 19.29A.140. No later than December 31 of each year, except that Ecology may revise the carbon intensity of electricity for 2023 no later than June 15, 2023, Ecology will:[DD(55]
 - (a) Post the updated utility-specific electricity carbon intensity for the next year on the Ecology webpage;
 - (b) Post the updated utility-specific carbon intensities for the next year on the Ecology webpage; and

- (c) Add the new fuel pathway codes to the Ecology Fuels Reporting System effective for Q1 reporting for the next year. [DD(56]
- (2) **Statewide electricity mix.** The carbon intensity for the statewide electricity mix will reflect the average carbon intensity of electricity served in Washington and be calculated by using the carbon-intensity of electricity from the most recent year as published by Department of Commerce under RCW 19.29A.140[DD(57].
- (3) **Unspecified electricity.** The emissions associated with Electricity generated from unspecified electricity is considered as generated using natural gas.
- (4) **On-site renewable electricity generation**. For on-site generation of electricity using renewable generation systems such as solar or wind, applicants must document that:
 - (a) The renewable generation system is on-site or directly connected to the electric vehicle chargers;
 - (b) The fuel pathway codes listed in Table 4 under WAC 173-424-TBLS for solar-generated or wind-generated electricity can only be used for the portion of the electricity dispensed from the charger that is generated by that dedicated renewable energy system;
 - (c) Any grid electricity dispensed from the charger must be reported separately under the statewide electricity mix or utility-specific fuel pathway codes; and
 - (d) RECs are not generated from the renewable generation system or, if they are, then an equal number of RECs generated from that facility to the number of MWh reported in the Washington Fuels Reporting System from that facility must be retired in the recognized REC tracking system.
- (5) **Offsite renewable electricity**. In order to lower the carbon intensity of electricity claimed as a vehicle fuel in the Clean Fuels Program, credit generators and aggregators may retire renewable electricity certificates that meet the following qualifications:
 - (a) Renewable Energy Certificates (RECs) retired in order to claim a carbon intensity other than the statewide mix or utility-specific mix must be certified by the Green-e Program under the Green-e Renewable Energy Standard for Canada and the United States version 3.5[DD58], or by a certification system approved by Ecology as being

- substantially equivalent. Unbundled RECs being used to claim low-carbon electricity through book and claim accounting must be certified at the wholesale level [DD59], while RECs used in a power purchase agreement or Utility Renewable Electricity Product may be certified at the retail level.;
- (b) RECs must be generated by an electric generator that was placed into service after 2023, or in the case of biogas generators they must meet the new date requirements of the Green-e Standard; [DD60]
- (c) RECs must be generated from facilities located in the Western Electricity Coordinating Council; and
- (d) RECs must be recorded and retired in a recognized REC tracking system. In addition to recognizing the Western Renewable Energy Generation Information System, Ecology may recognize additional REC tracking systems upon a request from a registered party. In reviewing those requests, Ecology will consider whether the tracking system is comparable to WREGIS and if it has systems in place to ensure accurate issuance and tracking of RECs.
- (6) Carbon intensity of renewable electricity. The carbon intensity of solar, wind, geothermal, hydropower, and ocean power renewable electricity is deemed to be zero. For renewable electricity generated from biomass, biogas, biodiesel, and hydrogen, the generator must file a Tier 1 or Tier 2 fuel pathway application to determine the carbon intensity of its electricity. Ecology may adopt an efficiency adjustment factor for biogas to electricity pathways that include emissions reduction credits in order to maintain the program's incentive for energy efficiency.
- (7) Utility Renewable Electricity Products and Power Purchase Agreements. Electric utilities and Electric Service Suppliers [DD61] may apply via a Tier 2 fuel pathway application for Ecology to assign a carbon intensity to one or more of their renewable electricity products or a specific power purchase agreement, which may then be used to generate credits from charging electric vehicles attributable to the use of such products or agreements. All of the following requirements apply to such applications:

- (a) Notwithstanding WAC 173-424-OCI, Tier 2 applications made under this section must include:
 - (i) A letter describing the power purchase agreement or Utility Renewable Electricity Product, the existing or planned source, or sources, of electricity and environmental attributes, and the terms by which it is being offered to customers;
 - (ii) Samples or examples of bills, invoices, contracts, or other documentation that an entity claiming renewable energy under this product could provide to Ecology to prove that their electric vehicle charging is covered by the product or agreement;
 - (iii) In the case of a Utility Renewable Electricity Product, any filings with, and orders by, the Washington Utilities and Transportation Commission, governing boards of consumer-owned utilities, or any other local governing board that approves the product; and
 - (iv) An estimate of the amount of electric vehicle charging attributable to customers for the product or agreement.
- (b) Ecology will review pathway applications under this section to determine if they result in a substantially similar environmental outcome to the sources of renewable energy required under section (5) of this rule. In reviewing a utility product or agreement that contains multiple sources of power, Ecology may use the estimate under paragraph (a)(iii) of this section to determine if sufficient renewable energy that is substantially similar to the requirements of section (5) is included in the product to cover transportation-related charging that may be claimed under the CFP. Ecology may revisit this determination annually using the annual fuel pathway report.
- (c) Annual Fuel Pathway Report. The annual fuel pathway report for pathways covered by this section must include information to update the sources or sources of electricity or environmental attributes that were used in the prior year and are planned for use in the year in which the report is submitted. That documentation must include retirement records for any RECs used to lower the claimed carbon intensity of the electricity being used by customers of those products in the Clean Fuels Program for the prior year. If the product is certified by the Green-e Program, proof of completion

of final verification of the product must be included, or a validation statement if the product is undergoing the program's Customer Procurement Review [DD62]. That documentation must also update the estimate of the amount of electric vehicle charging attributable to customers using the products or agreements. Fuel pathway reports required by this section are due by June 30 [DD63], notwithstanding WAC 173-424-OCI(g)(iii)(C).

Sections for Review at the April 13, 2022 Stakeholder Meeting

WAC 173-424-CDB Credit and Deficit Basics

(1) Carbon intensities.

- (a) Except as provided in subsections (b), (c), or (d), regulated parties, credit generators, and aggregators must use a carbon intensity approved by Ecology under WAC 173-424-OCI for calculating credits or/and deficits.
- (b) If a regulated party, credit generator, or aggregator has Ecology approved provisional carbon intensity under WAC 173-424-OCI, the regulated party, credit generator, or aggregator must use the provisional carbon intensity in calculating credits or/and deficits.
- (c) If a regulated party, credit generator, or aggregator has Ecology approved temporary carbon intensity under WAC 173-424-OCI, the regulated party, credit generator, or aggregator must use the temporary carbon intensity in calculating credits or/and deficits for the period which it has been approved, unless Ecology has subsequently approved a permanent carbon intensity for that fuel.
- (d) If a registered party purchases a blended finished fuel and the seller does not provide carbon intensity information, then the registered party must:
 - (i) Use the applicable substitute fuel pathway code in Table 8 under WAC 173-424-TBLS or otherwise Ecology approved and posted on its website under WAC 173-424-OIC (11) if the fuel is:
 - (A) exported,
 - (B) not used for transportation, or
 - (C) used in an exempt fuel use; and
 - (ii) Use the weighted average of the applicable substitute fuel pathway codes as described in (d)(i) of this subsection for the fossil fuel and biofuel or biofuels components, if the finished fuel blend is not listed.
- (2) **Fuel quantities.** Regulated parties, credit generators, and aggregators must express fuel quantities in the unit of fuel for each fuel.

- (3) **Compliance period.** The annual compliance period is January 1 through December 31 of each year, except the initial compliance period is January 1, 2023, through December 31, 2024 [DD64]; and
- (4) **Metric tons of CO2 equivalent**. Regulated parties, credit generators, and aggregators must express credits and deficits to the nearest whole metric ton of carbon dioxide equivalent.
- (5) Deficit and credit generation.
 - (a) Credit generation. A clean fuel credit is generated when:
 - (i) The fuel is produced, imported, or dispensed for use in Washington, as applicable, and the carbon intensity of the fuel approved for use under WAC 173-424-CI through DCIE is less than the clean fuel standard for [DD65]:
 - (A) Gasoline and gasoline substitutes in Table 1 under WAC 173-424-TBLS,
 - (B) Diesel fuel and diesel substitutes in Table 2 under WAC 173-424-TBLS, or
 - (ii) A valid and accurate quarterly report is submitted[DD66] in the Washington Fuels Reporting System.
 - (b) Deficit generation. A clean fuel deficit is generated when
 - (i) Fuel is produced, imported, or dispensed for use in Washington, as applicable, and the carbon intensity of the fuel approved for use under WAC 173-424-IC through DCIE is more than the clean fuel standard for:
 - (A) Gasoline and gasoline substitutes in Table 1 under WAC 173-424-TBLS or
 - (B) Diesel fuel and diesel substitutes in Table 2 under WAC 173-424-TBLS.
 - (ii) Deficits are generated when a valid and accurate quarterly report is submitted [DD67] in the Washington Fuels Reporting System.
 - (c) No credits may be generated or claimed for any transactions or activities occurring in a quarter for which the quarterly reporting deadline has passed, unless the credits are being generated for residential charging of electric vehicles.
- (6) **Mandatory retirement of credits.** When filing the annual report at the end of a compliance period, a registered party that possesses credits must retire a sufficient number of credits such that:

- (a) Enough credits are retired to completely meet the registered party's compliance obligation for that compliance period, or
- (b) If the total number of the registered party's credits is less than the total number of the regulated party's deficits, the registered party must retire all of its credits.
- (7) **Credit Retirement Hierarchy.** The Washington Fuels Reporting System will use the following default hierarchy to retire credits for the purposes of meeting a compliance obligation according to the following sequence:
 - (a) Credits acquired or generated in a previous compliance period prior to credits generated or acquired in the current compliance period;
 - (b) Credits with an earlier completed transfer "recorded date" before credits with a later completed transfer "recorded date;" and
 - (c) Credits generated in an earlier quarter before credits generated in a later quarter.

WAC 173-424-TC Transacting Credits

(1) General.

- (a) Credits are a regulatory instrument and do not constitute personal property, instruments, securities or any other form of property.
- (b) Regulated parties, credit generators, and aggregators may:
 - (i) Retain credits without expiration within the CFP in compliance with this division; and
 - (ii) Acquire or transfer credits from or to other regulated parties, credit generators, and aggregators that are registered under WAC 173-424-REG.
- (c) Regulated parties, credit generators, and aggregators may not:
 - (i) Use credits that have not been generated in compliance with this division; or
 - (ii) Borrow or use anticipated credits from future projected or planned carbon intensity reductions.

(2) Credit transfers between registered parties.

(a) "Credit seller," as used in this rule, means a registered party that wishes to sell or transfer credits.

- (b) "Credit buyer," as used in this rule, means a registered party that wishes to acquire credits.
- (c) A credit seller and a credit buyer may enter into an agreement to transfer credits.
- (d) A credit seller may only transfer credits up to the number of credits in the credit seller's Washington Fuels Reporting System account on the date of the transfer.
- (3) **Credit seller requirements.** When parties wish to transfer credits, the credit seller must initiate an online "Credit Transfer Form" provided in the Washington Fuels Reporting System and [DD68] must include the following:
 - (a) The date on which the credit buyer and credit seller reached their agreement;
 - (b) The names and FEINs of the credit seller and credit buyer;
 - (c) The first and last names and contact information of the persons who performed the transaction on behalf of the credit seller and credit buyer;
 - (d) The number of credits proposed to be transferred; and
 - (e) The price or equivalent value of the consideration (in US dollars) to be paid per credit proposed for transfer, excluding any fees. If no clear dollar value can be easily arrived at for the transfer, a price of zero must be entered and a qualitative description of the transaction's valuation must be entered in the seller's notes field.
- (4) **Credit buyer requirements.** Within 10 days [DD69] of receiving the "Credit Transfer Form" from the credit seller in the Washington Fuels Reporting System, the credit buyer must confirm the accuracy of the information therein and may accept the credit transfer by signing and dating the form using the Washington Fuels Reporting System.
- (5) **Voiding credits.** If the credit buyer and credit seller have not fulfilled the requirements of sections (3) and (4) within 20 days of the seller initiating the credit transfer, the transaction will be voided. If a transaction has been voided, the credit buyer and credit seller may initiate a new credit transfer.
- (6) **Aggregator.** [DD70]An aggregator may only act as a credit seller or credit buyer if that aggregator:
 - (a) Has an approved and active registration under WAC 173-424-REG;
 - (b) Has an account in the Washington Fuels Reporting System; and

(c) Has an approved Aggregator Designation Form from a regulated party or credit generator for whom the aggregator is acting in any given transaction.

(7) Illegitimate credits.

- (a) A registered party must report accurately when it submits information into the Washington Fuels Reporting System. If inaccurate information is submitted that results in the generation of one or more credits when such an assertion is inconsistent with the requirements of WAC 173-424-CDB through WAC 173-424-CCD, or a party's submission otherwise causes credits to be generated in violation of the requirements of this chapter, those credits are illegitimate and invalid. If Ecology determines that one or more credits that a party has generated are illegitimate credits, then:
 - (i) If the registered party that generated the illegitimate credits still holds them in its account, Ecology will cancel those credits;
 - (ii) If the registered party that generated the illegitimate credits has retired those credits to meet its own compliance requirement or if it has transferred them to another party, the party that generated the illegitimate credits must retire an approved credit to replace each illegitimate credit; and
 - (iii) The party that generated the illegitimate credits is also subject to enforcement for the violation, as deemed appropriate in Ecology's discretion.
- (b) A registered party that has acquired one or more illegitimate credits, but was not the party that generated the illegitimate credits:
 - (i) When the initial generator of the illegitimate credits has not retired approved credits in place of the illegitimate credits and Ecology determines that that initial generator is unlikely to be able to do so, then the party that has acquired such credits may have those credits canceled by Ecology if the party still holds the credits in its account, or if the party has used such illegitimate credits to meet its own compliance requirement, then Ecology may require the party to retire an approved credit to replace each such illegitimate credit that it retired to meet its compliance obligation;

- (ii) May be subject to enforcement at Ecology's discretion, unless Ecology determines that the party from whom the credits were acquired engaged in false, fraudulent, or deceptive trading practices.
- (8) **Prohibited credit transfers.** A credit transfer involving, related to, in service of, or associated with any of the following is prohibited:
 - (a) Fraud, or an attempt to defraud or deceive using any device, scheme or artifice;
 - (b) Either party employed any unconscionable tactic in connection with the transfer;
 - (c) Any false report, record, or untrue statement of material fact or omission of a material fact related to the transfer or conditions that would relate to the price of the credits being transferred. A fact is material if it is reasonably likely to influence a decision by another party or by the agency;
 - (d) Where the intended effect of the activity is to lessen competition or tend to create a monopoly, or to injure, destroy or prevent competition;
 - (e) A conspiracy in restraint of trade or commerce; or
 - (f) An attempt to monopolize, or combine or conspire with any other person or persons to monopolize.

WAC 173-424-FICDC Fuels to Include in Credit and Deficit Calculation

- (1) **Fuels included.** Credits and deficits must be calculated for all regulated fuels and clean fuels, except that:
 - (a) Credits may be generated only for B100 that complies with an oxidation stability induction period of not less than 8 hours as determined by the test method described in the European standard EN 15751;
 - (b) B100 that does not comply with subsection (a) can still be imported into Washington and must be reported, but cannot generate credits for the CFP. [DD71]
- (2) **Fuels exempted.** Except as provided in sections (3), (4), and (5), credits and deficits may not be calculated for fuels exempted under WAC 173-424-EXMPT.
- (3) **Voluntary inclusion.** A regulated party, credit generator, or aggregator may choose to include in its credits and deficits calculations fuel that is exempt under WAC 173-424-EXMPT (1) and fuel that is sold to an exempt fuel user in Washington under WAC 173-424-

EXMPT(2), [DD72] provided that the credit and deficit calculation includes all fuels listed on the same invoice.

(4) When fuels are exported from Washington:

- (a) Any bulk quantity of fuel that is exported must be reported by the person who holds title to the fuel when it is exported;
- (b) If the exporter purchased the fuel with the compliance obligation, the exported fuels will not generate deficits or credits;
- (c) If credits or deficits were generated and separated from the fuel through a transfer without obligation, the exporter will incur credits or deficits, as appropriate, to balance out the deficits or credits detached from the fuel; and
- (d) If the fuel was imported in one quarter and exported in another quarter, the exporter will incur credits or deficits, as appropriate, to balance out the deficits or credits, respectively, associated with the fuel when it was imported in the prior quarter.
- (5) Alternative jet fuel. Alternative jet fuel may be reported by the producer or importer of the fuel and any registered parties that hold title to it, so long as the fuel is loaded into airplanes [DD73] in Washington. If a gallon of alternative jet fuel that has been reported to the Clean Fuels Program as imported or produced is later exported, lost, or otherwise not used for transportation it must be reported as such.

WAC 173-424-CCD Calculating Credits and Deficits

- (1) General credit or deficit calculation method: Except as provided in sections (2) and (3), credit and deficit generation must be calculated for all fuels included in WAC 173-424-FICDC:
 - (a) Using credit and deficit basics as directed in WAC 173-424-CDC;
 - (b) Calculating energy in megajoules by multiplying the amount of fuel by the energy density of the fuel in Table 6 under WAC 173-424-TBLS;
 - (c) Calculating the adjusted energy in megajoules by multiplying the energy in megajoules from subsection (2) by the energy economy ratio of the fuel listed in Table 7 under WAC 173-424-TBLS or as approved by Ecology under WAC 173-424-EERACI, as applicable;

- (d) Calculating the carbon intensity difference by subtracting the value in (i) from (ii) below:
 - (i) The fuel's carbon intensity as approved under WAC 173-424-CI through -DCIE, adjusted for the fuel application's energy economy ratio as listed in Table 7 under WAC 173-424-TBLS or as approved under WAC 173-424-EERACI as applicable,
 - (ii) The clean fuel standard for gasoline or gasoline substitutes listed in Table 1 under WAC 173-424-TBLS or diesel fuel and diesel substitutes listed in Table 2 under WAC 173-424-TBLS, as applicable;
- (e) Calculating the grams of carbon dioxide equivalent by multiplying the adjusted energy in megajoules in (c) by the carbon intensity difference in (d) of this subsection;
- (f) Calculating the metric tons of carbon dioxide equivalent by dividing the grams of carbon dioxide equivalent calculated in section (5) by 1,000,000; and
- (g) Determining under WAC 173-424-CDB(5) whether credits or deficits are generated.
- (2) Calculation method for fixed guideway vehicles and electric forklifts. For electricity used to power fixed guideway vehicles on track placed in service prior to 2023 and forklifts from model year 2023 and earlier [DD74], credit and deficit generation must be calculated by:
 - (a) Using credit and deficit basics as directed in WAC 173-424-CDB;
 - (b) Calculating energy in megajoules by multiplying the amount of fuel by the energy density of the fuel in Table 6 under WAC 173-424-TBLS;
 - (c) Calculating the carbon intensity difference by subtracting (i) from (ii) below:
 - (i) The fuel's carbon intensity as approved under WAC 173-424-CI through -DCIE, adjusted for the fuel application's energy economy ratio listed in Table 7 under WAC 173-424-TBLS as applicable,
 - (ii) The clean fuel standard for gasoline or gasoline substitutes listed in Table 1 under WAC 173-424-TBLS or diesel fuel and diesel substitutes listed in Table 2 under WAC 173-424-TBLS, as applicable;
 - (d) Calculating the grams of carbon dioxide equivalent by multiplying the adjusted energy in megajoules in subsection (3) by the carbon intensity difference in subsection (4); [DD75]

- (e) Calculating the metric tons of carbon dioxide equivalent by dividing the grams of carbon dioxide equivalent calculated in subsection (5) [DD76] by 1,000,000; and
- (f) Determining under WAC 173-424-CI (5) whether credits or deficits are generated.
- (3) **Residential electric vehicle charging**: For electricity used in residential charging of electric vehicles, credit calculations must be based on the total electricity dispensed (in kilowatt hours) to vehicles, measured by:
 - (a) The use of direct metering (either sub-metering or separate metering) to measure the electricity directly dispensed to all vehicles at each residence; or
 - (b) For residences where direct metering has not been installed, Ecology will calculate the total electricity dispensed as a transportation fuel based on analysis of the total number of BEVs and PHEVs in a utility's service territory based on Washington Department of Licensing [DD77]records. Ecology will perform this analysis at least twice a year and issue credits based on it. Ecology will select one of the following methods for estimating the amount of electricity charged based on its analysis of which is more accurate and feasible at the time it is performing the analysis[DD78]:
 - (i) An average amount of electricity consumed by BEVs and PHEVs at residential chargers, based on regional or national data; or
 - (ii) An analysis of the average electric vehicles miles traveled by vehicle type or make and model, which compares the total amount of estimated charging for those electric vehicle miles travelled with the total reported charging in those territories in order to determine the amount of unreported charging that can be attributed to residential charging. The analysis may be done on a utility territory specific or statewide basis.
 - (c) If Ecology determines after the issuance of residential electric vehicle credits that the estimate under (b) contained a significant error that led to one or more credits being incorrectly generated, the error will be corrected by withholding an equal number of credits to the erroneous amount from the next generation of residential electric vehicle credits.

- (d) A credit generator or aggregator may propose an alternative method, subject to the approval of Ecology upon its determination that the alternative method is more accurate than either of the methods described in subsection (b).
- (e) Credits generated under this subsection will be calculated by Ecology under subsection (1) of this section using the estimated amount of electricity under (3)(b) and issued at least twice per year [DD79] into the Washington Fuels Reporting System account of the utility, its designated aggregator, or the backstop aggregator within three months of the close of that year.
- (f) Registered parties eligible to generate credits for the 2018 year also will generate credits for 2016 and 2017 residential electric vehicle charging. [DD80]
- (4) Incremental Credits. [DD81]In calculating incremental credits for actions that lower the carbon intensity of electricity, the credit calculations must be performed based on subsection (1) of this section, except that the carbon intensity difference is calculated based on the carbon intensity of the renewable power and the carbon intensity used to calculate the base credits [DD82]for that electric vehicle or charging equipment, and consistent with following requirements, as applicable:
 - (a) Incremental credits for **non-residential charging** are generated upon the retirement of RECs that qualify under WAC 173-424-DCIE(5) by the credit generator, its aggregator, or the incremental aggregator, or by another entity on their behalf. For credit generators and their aggregators, RECs must be retired prior to or at the same time as the submittal as the quarterly report where the charging is being reported and REC retirement records must be submitted with the quarterly report as supplemental documentation. RECs may be retired by another entity on behalf of the credit generator or aggregator for their electric vehicle charging so long as it is clearly documented and that documentation is submitted with the quarterly report.
 - (b) For incremental credits generated using a Utility Renewable Electricity Product or Power Purchase Agreement, evidence that the chargers were covered by such a product must be submitted at least annually along with a quarterly report. Upon request by Ecology, any entity using a Power Purchase Agreement or a Utility

- Renewable Electricity Product must produce evidence that the charging equipment was covered by that agreement or product for all time periods when the entity was claiming incremental credits.
- (c) For the incremental aggregator, incremental credits are generated when it retires RECs on behalf of non-residential electric vehicle charging.
- (d) Incremental credits for residential charging are generated by a utility or its aggregator when RECs are retired on behalf of that charging, or when a utility demonstrates to Ecology that EVs are being charged by customers enrolled in its Utility Renewable Electricity Products.

WAC 173-424-DC Demonstrating Compliance

- (1) **Compliance demonstration**. Each regulated party must meet its compliance obligation for the compliance period by demonstrating through submission of its annual compliance report that it possessed and has retired a number of credits from its account that is equal to its compliance obligation calculated under section (2).
- (2) **Calculation of compliance obligation**. Ecology calculates regulated party's compliance obligation a the sum of deficits generated in the compliance period plus deficits carried over from the prior compliance period, represented in the following equation:
 - Compliance Obligation = Deficits Generated + Deficits Carried Over

(3) Calculation of credit balance.

- (a) Definitions. For the purpose of this section:
 - (i) Deficits Generated are the total deficits generated by the regulated party in the current compliance period;
 - (ii) Deficits Carried Over are the total deficits carried over by the regulated party from the previous compliance period;
 - (iii) Credits Generated are the total credits generated by the regulated party in the current compliance period;

- (iv) Credits Acquired are the total credits acquired by the regulated party in the current compliance period from other regulated parties, credit generators, and aggregators, including carryback credits;
- (v) Credits Carried Over are the total credits carried over by the regulated party from the previous compliance period;
- (vi) Credits Retired are the total credits retired by the regulated party within the CFPOnline System for the current compliance period;
- (vii) Credits Sold are the total credits sold by, or otherwise transferred from, the regulated party in the current compliance period to other regulated parties, credit generators, and aggregators; and
- (viii) Credits on Hold are the total credits placed on hold due to enforcement or an administrative action. While on hold, these credits cannot be used for meeting the regulated party's compliance obligation.
- (b) A regulated party's credit balance is calculated using the following equation:

Credit Balance = (Credits Gen + Credits Acquired + Credits Carried Over) – (Credits Retired + Credits Sold + Credits on Hold)

- (4) **Small deficits**. At the end of a compliance period, a regulated party that has a net deficit balance may carry forward a small deficit to the next compliance period without penalty. A small deficit exists if the amount of credits the regulated party needs to meet its compliance obligation is 5 percent or less than the total amount of deficits the regulated party generated for the compliance period.
- (5) Extended credit acquisition period. A regulated party may acquire carryback credits between January 1st and March 31st to be used for meeting its compliance obligation for the prior compliance period. A regulated party complete all carryback credit transfers in the CFP Online System prior to submitting their annual report, but no later than April 30, in order for them to be valid for meeting the compliance obligation for that annual report's compliance period.

- (6) Extended compliance period for large importers of finished fuels. A large importer of finished fuels can choose to carry over deficits accrued in 2016 and 2017 to 2018 when compliance with the aggregate deficit balance must be met. [DD83]
- (7)(6) Non-small deficit. Regulated parties who do not demonstrate compliance under section (1) and whose deficit is not small as defined in subsection (4) may demonstrate compliance through participation in the Credit Clearance Market under WAC 173-424-CCM.

WAC 173-424-CCM Credit Clearance Market

- (1) **General.** If a regulated party did not retire sufficient credits to meet its compliance obligation under WAC 173-424-DC(1) (5), exclusive of any deficits carried forward to the next compliance period under WAC 173-424-DC(4), it must enter and purchase its pro-rata share of credits in the credit clearance market under section (5).[DD84]
 - (a) The credit clearance market is separate from the normal year-round market opportunities for parties to engage in credit transactions.
 - (b) Ecology will consider a regulated party in compliance with WAC 173-424-DC if it acquires its pro-rata obligation in the credit clearance market and retires that number of credits within 30 days of the end of the credit clearance market [DD85].
- (2) Maximum price. The maximum price for the credit clearance market will be:
 - (a) \$XXX (200 of 2018) [DD86] per credit for the markets held upon the submission of the annual reports for 2023 [DD87].
 - (b) For markets held upon submission of annual reports in 2018 and thereafter Ecology shall adjust the maximum price for the credit clearance market annually for inflation at the end of each January using the inflation rate as provided by the last twelve months of data from the US Bureau of Labor Statistics West Region Consumer Price Index for All Urban Consumers for All Items. The formula for that adjustment is as follows:

 maximum price = [Last year's maximum price] * (1 + [CPI-U West]). Ecology will publish the new maximum price on its webpage each year.
- (3) Acquisition of credits in the credit clearance market. The credit clearance market will operate from June 1 to July 31[DD88].

- (a) Regulated parties subject to subsection (1) must acquire their pro-rata share of the credits in the credit clearance market calculated in subsection (5) of this section.
- (b) A regulated party may only use credits acquired in the credit clearance market to retire them against its unmet compliance obligation from the prior year.
- (c) To qualify for compliance through the credit clearance market, the regulated party in question must have:
 - (i) Retired all credits in its possession; and
 - (ii) Have an unmet compliance obligation for the prior year that has been reported to Ecology through submission of its annual report in the CFP Online System.

(4) Selling credits in the clearance market.

- (a) On the first Monday in April each year, Ecology shall issue a call to all eligible registered parties in the CFP Online System [DD89] to pledge credits into the credit clearance market, or will issue a notification that it will not hold a credit clearance market that year. Registered parties are eligible to sell credits in the clearance market if they will have excess credits upon the submission of their annual report. Parties wanting to pledge credits into the credit clearance market will notify Ecology by April 30. Ecology will announce if a clearance market will occur by May 15.
- (b) In order to participate in the credit clearance market, sellers must:
 - (i) Agree that they will sell their credits for no higher than the maximum price as published by Ecology for that year;
 - (ii) Agree to withhold any pledged credits from sale in any transaction outside of the credit clearance market until the end of the credit clearance market on July 31, or if no clearance market is held in a given year, then on the date which Ecology announces it will not be held;
 - (iii) Not reject an offer to purchase the credits at the maximum price for that year as published by Ecology, unless the seller has already sold or agreed to sell those pledged credits to another regulated party participating in the credit clearance market; and [DD90]

- (iv) Agree to replace any credits that the seller pledges into the clearance market if those credits are later found to be invalid by Ecology due to fraud or noncompliance by the generator of the credit, unless the buyer of the credits was a party to that fraud or non-compliance.
- (5) Operation of the credit clearance market. Prior to June 1, Ecology will inform each regulated party that failed to meet its annual compliance obligation under WAC 173-424-DC of its pro-rata share of the credits pledged into the credit clearance market.
 - (a) Calculation of pro-rata shares.
 - (i) Each regulated party's pro-rata share of the credits pledged into the credit clearance market will be calculated by the following formula:

Regulated Party A's pro-rata share =

$$\left[\frac{\text{A's deficit}}{\text{All Parties'total deficit}}\right] x \text{ [lesser of (pledged credits) or (total deficits)]}$$

- (A) "Deficit" refers to the regulated party's total obligation for the prior compliance year that has not been met under WAC 173-424-DC;
- (B) "All parties' total deficit" refers to the sum of all of the unmet compliance obligations of all regulated parties in the credit clearance market; and
- (C) "Pledged credits" refers to the sum of all credits pledged for sale into the credit clearance market.
- (ii) If there is at least one large producer or importer of finished fuels

 [DD91] participating in the credit clearance market, Ecology will determine the pro-rata share of the available credits in two phases.
 - (A) The first phase will begin with all of the credits pledged into the credit clearance market and the deficits from large producers or importers finished fuels [DD92]in place of "all parties' total deficit" in (5)(a)(i)(B).
 - (B) The second phase will begin with the remainder of the pledged credits into the credit clearance market in place of "pledged credits" in (5)(a)(i)(C) and the deficits from all other regulated parties in place of "all parties' total deficit" in (5)(a)(i)(B).

- (C) The calculation for each phase will be done as in paragraph (i).
- (b) On or before June 1, Ecology will post the name of each party that is participating in the credit clearance market as a buyer, and the name of each party that is participating as a seller in the market and the number of credits they have pledged into the market.
- (c) Following the close of the credit clearance market, each regulated party that was required to purchase credits in the credit clearance market must submit an amended annual compliance report in the CFP Online System by August 31 which shows the acquisition and retirement of its pro-rata share of credits purchased in the credit clearance market, and any remaining unmet deficits.
- (6) If a regulated party has unmet deficits upon the submission of the amended annual compliance report, Ecology will increase the regulated party's number of unmet deficits by five percent and the total unmet deficits will be carried over into the next compliance period for that regulated party.
- (7) If the same regulated party has been required to participate in two consecutive credit clearance markets and carries over deficits under subsection (6) in both markets, Ecology will conduct a root cause analysis into the inability of that regulated party to retire the remaining deficits.
 - (a) If multiple regulated parties are subject to this section in a single year, Ecology may produce a single root cause analysis for those regulated parties if it determines the same general set of causes contributed to those parties' inability to retire those deficits. Ecology will also analyze whether there were specific circumstances for the individual parties.
 - (b) Based on the results of the root cause analysis, Ecology may issue a deferral under WAC 173-424-ED(6)(c)(A) through (C) [DD93]or craft a remedy that addresses the root cause or causes. The remedy cannot:
 - (i) Require a regulated party to purchase credits for an amount that exceeds the maximum price for credits in the most recent credit clearance market; or
 - (ii) Compel a registered party to sell credits.

WAC 173-424-AD Advance Crediting

- (ii) The station must be open to the public, meaning that no obstructions or obstacles exist to preclude vehicle operators from entering the station premises, no access cards or personal identification (PIN) codes are required for the station to dispense fuel, and no formal or registered station training shall be required for individuals to use the hydrogen refueling station.
- (iii) The station uses a public point of sale terminal that accepts major credit and debit cards.
- (iv) The station uses a system that verify the availability of the station for refueling, similar to being connected with the Station Operational Status System (SOSS)[DD103], and:
 - (A) The station passed final inspection by the appropriate authority having jurisdiction and has a permit to operate. [DD104]
 - (B) The station owner has fully commissioned the station, and has declared it fit to service retail FCV drivers. This includes the station owner's declaration that the station meets an appropriate SAE fueling protocol.
 - (C) At least three OEMs have confirmed that the station meets protocol expectations, and their customers can fuel at the station.
 - (D) All dispensers installed in the hydrogen refueling station have undergone a review for suitability of the type of station by the Washington State

 Department of Agriculture Weights and Measures Program and have either a Temporary Use Permit. [DD105]
- (v) The FSE registration must be completed pursuant to WAC 173-424-REG(1)(h) and the quantity of dispensed hydrogen must be reported as required in WAC 173-424-SRR.
- (vi) Dispensed hydrogen meets the following CI and renewable content requirements on a company-wide, weighted average basis. Ecology will consider all the stations registered by an entity with a unique FEIN in the WFRS for calculating the company-wide weighted average CI and renewable content.
 - (A) CI of 85 gCO2e/MJ or less [DD106], and

- (B) Renewable content of 65 percent or greater [DD107].
- (vii) The station must be operational within 24 months of application approval. If the applicant fails to demonstrate the operability within 24 months of approval then the application will be canceled. The applicant can reapply for the same station eligible only for 8 years of crediting.
- (viii) The estimated cumulative value of HRI credits generated for the FSE in the prior quarter must be less than the difference between the total capital expenditure reported pursuant to (f)(ii)(A) of this subsection and the total grant revenue or other funding reported pursuant to (f)(ii)(E) of this subsection in the prior quarter.
 - (A) The estimated value of FCI credits, for the purpose of this determination, shall be calculated using the number of FCI credits generated for the FSE in the quarter and the average CFP credit price for that quarter published on Ecology's CFP website.
 - (B) The cumulative credit value generated for each FSE will be tracked as the sum of all quarterly credit values in constant-dollar for the year in which the FCI application was approved using an annual discount rate of 10% [DD108].
 - (C) The estimated value calculated under this provision will be made available only to the respective reporting entity in WRFS and will not be published on Ecology's CFP website.
 - (D) This will not affect the reporting entity's ability to generate non-FCI LCFS credits for the electricity dispensed at the FSE.
- (e) Calculation of HRI Credits. HRI credits will be calculated using the following equation: $Credits_{HRI}(MT)$

=
$$(CI_{standard}^{XD} \times EER - CI_{HRI}) \times E_{H2} \times (Cap_{HRI} \times N \times UT - H2_{disp}) \times C$$

- CI_{standard} is the average carbon intensity standard of gasoline (XD = "gasoline")
 for a given year as provided in table 1 of WAC 173-424-TBLS;
- EER is the dimensionless Energy Economy Ratio for H2/FCV relative to gasoline as listed in Table 5;

- CI_{HRI} is the carbon intensity used for HRI crediting. Company-wide weighted average CI for dispensed hydrogen during the quarter or 0 g/MJ, whichever is greater;
- E_{H2} is the energy density for hydrogen in MJ/kg as listed in Table 4;
- Cap_{HRI} is the HRI refueling capacity for the station (kg/day);
- UT is the the uptime multiplier which is the percentage of time that the station is available, similar as reported in SOSS, during the quarter;
- H2_{disp} is the quantity of hydrogen dispensed during the quarter (kg);
- N is the number of days during the quarter;
- *C* is a factor used to convert credits to units of metric tons from gCO2e and has the value of:

$$C = 1.0 \times 10^{-6} \frac{(MT)}{(gCO2e)}$$

- (f) Reporting and Recordkeeping Requirements. The following must be reported to Ecology each quarter as set forth in WAC 173-424-SRR before credits will be issued to the WRFS account associated with an approved HRI pathway.
 - (i) Station availability. This is the percentage of hours the station is available for fueling during the quarter relative to the permitted hours of operation for the station. Any period of time that a portion of the station capacity is not available will count as a pro-rated amount of station availability, proportional to the percentage of the station capacity that remains available for fueling for this period of time.
 - (ii) Company-wide, weighted average renewable content (percent) for dispensed hydrogen.
 - (iii) Cost and revenue data. Provide a quarterly account of the following costs borne and revenues received by the station owner up through the most recent reporting quarter per station.
 - (A) Total capital expenditures (\$)
 - (B) Total delivered cost (\$) of hydrogen and average delivered cost (\$/kg) for hydrogen

- (C) Total maintenance costs (\$)
- (D) Total land rental cost (\$)
- (E) Total grant revenue or other external funding received towards capital expenditures (\$)
- (F) Total grant revenue or other external funding received towards operational and maintenance expenditures (\$)
- (G) Total revenue (\$) received from sale of hydrogen and average retail price (\$/kg) for hydrogen sold
- (H) Other operational expenditures (\$)
- (g) Applications for Expanded HRI Refueling Capacity. Station owners who expand the capacity of a station and that is already generating HRI credits under the LCFS must submit an application to Ecology to generate additional credits based on the updated capacity. Applications for expanded station capacity must be received before

 December 31, 2030 [DD109] and do not extend the effective date range for the HRI crediting specified upon initial project approval in (1)(c)(iv). The application must include the following elements.
 - (i) In order to be eligible to generate HRI credits for expanded capacity, the station owner must demonstrate that station throughput in a reporting quarter is greater than or equal to 50 percent of the original approved HRI refueling capacity.
 - (ii) Updated nameplate refueling capacity and updated HRI refueling capacity.
 - (iii) If the sources of hydrogen and delivery methods stated in the original HRI application will change as a result of the added capacity, the station owner must disclose the new hydrogen sources and delivery methods.
 - (iv) The station owner must maintain records demonstrating that any new equipment added as a result of the expansion in capacity, including storage and

(2) DC Fast Charging Infrastructure (FCI) Pathways

(a) FCI Pathway Eligibility. An FSE owner may submit an application to receive an FCI pathway subject to the following eligibility conditions:

- (i) The proposed FSE must be located in Washington and open to the public for charging.
- (ii) Upon an individual applicant's estimated potential FCI credits, calculated pursuant to (c)(ii) of this subsection, exceeding 0.5 percent [DD110] of the deficits in the prior quarter, each additional site applied for by the applicant must meet the following requirements:
 - (A) Charging equipment at the site must support at least two of the following three fast charging connectors: CHAdeMO, SAE CCS, and/or Tesla;
 - (B) The site must have at least one FSE with a CHAdeMO connector protocol and at least one FSE with an SAE CCS connector protocol; and
 - (C) No more than three-quarters of all FSE subject to this provision [DD111]at the site can support only a single fast charging connector protocol.
- (iii) The FCI pathway application must be received on or before December 31, 2029.
- (iv) The following FSE are not eligible for FCI crediting:
 - (A) Any FSE that is permitted to operate prior to January 1, 2023[DD112]; or
 - (B) Any FSE receiving or spending funds pursuant to any settlement related to any Washington or Federal regulation enforcement; or
 - (C) Any FSE built as a required mitigation measure pursuant to the State Environmental Policy Act (SEPA). [DD113]
- (v) Each FSE must have a minimum nameplate power rating of 50 kW.
- (vi) Each FSE must be networked and capable of monitoring and reporting its availability for charging.
- (b) FCI Application Requirements. The applicant must submit an application in the WFRS containing the following information:
 - (i) Name and address of the owner of the proposed FSE.
 - (ii) Contact person for the owner entity.
 - (A) Name
 - (B) Title or position
 - (C) Phone number

- (D) Mobile phone number
- (E) Email address
- (iii) Name, street address, latitude, longitude and a location description for each proposed FSE site.
- (iv) The number of FSEs.
- (v) The nameplate power rating (kW), connector type(s), and model for each FSE.
 - (A) The total nameplate power rating for all FSE at a single site claiming FCI credit under this provision cannot exceed 1,500 kW[DD114].
 - (B) Notwithstanding (b)(v)(A) above, upon request Ecology may approve an application with total nameplate power rating for all FSE at a single site up to 3,600 kW[DD115]. The total number of FSE at sites with total nameplate power rating greater than 1,500 [DD116]kW cannot exceed 10 percent [DD117] of total FSE approved under FCI pathways. The applicant must provide justification for requesting a total power rating greater than 1,500 kW at the given site.
- (vi) The effective simultaneous power rating (kW) for each FSE calculated using the equation below. The effective simultaneous power rating must be at least 50 percent of the nameplate power rating for each FSE.

$$P_{Sim}^{i} = P_{NP}^{i} \times \frac{P_{Sim}^{Tot}}{\sum_{i=1}^{n} P_{NP}^{i}}$$

Where:

- P_{NP}^{i} is the nameplate power rating (kW) for FSE i;
- P_{Sim}^{Tot} is the maximum total power (kW) that can be delivered to all FSEs at a single site when they are operated simultaneously; and
- n is the number of FSEs at a single site.
- (vii) The FCI charging capacity for each FSE calculated using the following equation:

$$Cap_{FCI}^{i} = 43 \text{ x } (P_{FCI}^{i})^{0.45}$$

- $\bullet \quad Cap_{FCI}^{i}$ is the FCI charging capacity (kWh/day) for the FSE i; and
- P_{FCI}^{i} is the nameplate power rating for the FSE or 350kW.
- (viii) Expected date that the FSE will be operational
- (ix) Expected daily permitted hours of operation for the site. If the daily permitted hours are less than 24 hours, the applicant must provide documentation from a permitting authority demonstrating that daily permitted hours for the FSE are limited.
- (x) A signed attestation letter from the applicant attesting to the veracity of the information in the application packet. The attestation letter must be submitted as an electronic copy, be on company letterhead, be signed by an officer of the applicant with authority to attest to the veracity of the information in the application and to sign on behalf of the applicant, be from the applicant and not from an entity representing the applicant (such as a consultant or legal counsel), and include the following attestation:

 for the information herein provided to Ecology. I certify under penalty of perjury under the laws of the State of California that I have personally examined, and am familiar with, the statements and information submitted in this document. I certify that the statements and information submitted to Ecology are true, accurate, and complete.

- (i) CBI must be designated and a redacted version of any submitted documents designated to include CBI must be provided according to the Ecology process consistent with the Washington State Public Records Act. [DD118]
- (ii) An application and supporting documents must be submitted electronically via the WRFS unless the Ecology has approved or requested in writing another format.
- (b) Application Approval Process.
 - (i) The FCI application must be approved by Ecology before the applicant may generate FCI credits. If estimated potential FCI credits from all approved FSEs exceed 2.5 percent of deficits in the prior quarter, Ecology will not approve additional FCI pathways and will not accept additional applications until FCI credits are less than 2.5 percent of deficits. FCI applications will be evaluated for approval on a first come, first served basis.

Estimated potential FCI credits will be calculated using the following equation:

$$Credits_{FCI}^{Potential} = Credits_{FCI}^{Prior Qtr} \times \frac{Cap_{FCI}^{Approved}}{Cap_{FCI}^{Operational}}$$

- Credits Potential means the estimated potential FCI credits from all approved FSEs;
- Credits $_{FCI}^{Prior\ qtr}$ means the total FCI credits generated by operational FSEs in the prior quarter;
- Cap ^{Operational} means the total FCI charging capacity of FSEs that were operational in the prior quarter, and
- Cap ^{Approved} means the total FCI charging capacity of all approved FSEs, both operational and nonoperational.

- (ii) The estimated potential FCI credits for an individual applicant will be calculated using the same equation as in (A) above, where:
 - Credits Potential means the estimated potential FCI credits from the applicant's approved FSEs;
 - Credits Prior qtr means the total FCI credits generated by the applicant for operational FSEs in the prior quarter;
 - Cap ^{Operational} means the total FCI charging capacity of the applicant's FSEs that were operational in the prior quarter; and
 - Cap ^{Approved} means the total FCI charging capacity of all of the applicant's approved FSE, both operational and nonoperational.
- (iii) After receipt of an application designated by the applicant as ready for formal evaluation, Ecology shall advise the applicant in writing either that:
 - (A) The application is complete, or
 - (B) The application is incomplete, in which case Ecology will identify which requirements of (b) of this subsection have not been met.
 - (I) The applicant may submit additional information to correct deficiencies identified by Ecology.
 - (II) If the applicant is unable to achieve a complete application within 180 days of Ecology's receipt of the original application, the application will be denied on that basis, and the applicant will be informed in writing.
 - (C) At any point during the application evaluation process, Ecology may request in writing additional information or clarification from the applicant.
- (iv) Ecology shall not approve an application if determines that the application does not meet requirements in (a) and (b) of this subsection, based upon the information submitted in the application and any other available information. If Ecology does not approve the application, the applicant will be notified in writing and the basis for the disapproval shall be identified.
- (v) If Ecology determines the application has met all requirements for approval pursuant to (a) and (b) of this subsections, Ecology will approve the application

- and provide an approval summary on Ecology's CFP website including the site location and FSE ID, number and type of FSE, nameplate and effective simultaneous power rating for each FSE, and effective date range for FCI pathway crediting.
- (vi) Crediting Period. FCI crediting is limited to 5 years starting with the quarter following Ecology approval of the application.
- (c) Requirements to Generate FCI Credits. To generate credits using FCI pathways the following conditions must be met. The applicant must maintain, and submit to Ecology upon request, records demonstrating adherence to these conditions.
 - (i) The applicant must update the nameplate and effective simultaneous power rating of FSE if different from the power rating provided in the application. Any FSE design or operational information that deviates from the original application must be declared to Ecology, and a new attestation must be submitted using the language in (b) in this subsection.
 - (ii) The FSE must be open to the public, meaning that no obstructions or obstacles exist to preclude vehicle operators from entering the FSE premises, no access cards or personal identification (PIN) codes are required for the FSE to dispense fuel, and no formal or registered equipment training shall be required for individuals to use the FSE.
 - (iii) The FSE that charges a fee for service must be capable of supporting a public point-of-sale method that accepts all major credit or debit cards.
 - (iv) The FSE passed final inspection by the appropriate authority having jurisdiction and has a permit to operate.
 - (v) The FSE owner has fully commissioned the FSE, and has declared it fit to service retail EV drivers.
 - (vi) The FSE registration must be completed pursuant to WAC 173-424-REG (1)(h) and the quantity of dispensed electricity must be reported as required in WAC 173-424-SRR.

- (vii) The FSE must be operational within 12 months of application approval. If the applicant fails to demonstrate the operability within 12 months of approval then the application will be canceled. The applicant can reapply for the same FSE site eligible only for 2 years [DD119] of crediting.
- (viii)The estimated cumulative value of FCI credits generated for the FSE in the prior quarter must be less than the difference between the total capital expenditure reported pursuant to (f)(ii)(A) of this subsection and the total grant revenue or other funding reported pursuant to (f)(ii)(E) of this subsection in the prior quarter.
 - (A) The estimated value of FCI credits, for the purpose of this determination, shall be calculated using the number of FCI credits generated for the FSE in the quarter and the average CFP credit price for that quarter published on Ecology's CFP website.
 - (B) The cumulative credit value generated for each FSE will be tracked as the sum of all quarterly credit values in constant-dollar for the year in which the FCI application was approved using an annual discount rate of 10% [DD120].
 - (C) The estimated value calculated under this provision will be made available only to the respective reporting entity in WRFS and will not be published on Ecology's CFP website.
 - (D) This will not affect the reporting entity's ability to generate non-FCI LCFS credits for the electricity dispensed at the FSE.
- (d) Calculation of FCI Credits. FCI credits will be calculated using the following equation for each FSE approved under this provision:

 $Credits_{FCI}(MT)$

=
$$(CI_{standard}^{XD} \times EER - CI_{FCI}) \times C_{Elec} \times (Cap_{FCI} \times N \times UT - Elec_{disp}) \times C$$

- CI^{XD}_{standard} is the average carbon intensity standard of gasoline (XD = "gasoline")
 for a given year as provided in table 1 of WAC 173-424-TBLS;
- EER is the dimensionless Energy Economy Ratio for Electricity/BEV or PHEV relative to gasoline as listed in Table 5;

- CI_{FCI} is the Washington average grid electricity/utility-specific [DD121]carbon intensity as listed in Table X[DD122];
- C_{Elec} is the conversion factor for electricity as listed in Table 6;
- *Cap_{FCI}* is the FC charging capacity (kWh/day) for the FSE;
- N is the number of days during the quarter;
- UT is the uptime multiplier which is the fraction of time that the FSE is available for charging during the quarter;
- Elec_{disp} is the quantity of electricity dispensed during the quarter (kWh);
- *C* is a factor used to convert credits to units of metric tons from gCO2e and has the value of:

$$C = 1.0 \times 10^{-6} \frac{(MT)}{(gCO2e)}$$

- (e) Reporting and Recordkeeping Requirements. The following must be reported to Ecology each quarter as set forth in WAC 173-424-SRR before credits will be issued to the WFSR account associated with an approved FCI pathway.
 - (i) FSE availability. This is the percentage of hours the FSE is available for charging during the quarter relative to the permitted hours [DD123] of operation for the site.
 - (ii) Cost and revenue data. Provide a quarterly account of the following costs borne and revenues received by the FSE owner up through the most recent reporting quarter per site.
 - (A) Total capital expenditures (\$)
 - (B) Total delivered cost (\$) of electricity, including demand charges, and average delivered cost (\$/kWh) for electricity
 - (C) Total maintenance costs (\$)
 - (D) Total land rental cost (\$)
 - (E) Total grant revenue or other external funding received towards capital expenditures (\$)
 - (F) Total grant revenue or other external funding received towards operational and maintenance expenditures (\$)

- (G) Total revenue (\$) received from sale of electricity and average retail price (\$/kWh) for electricity sold
- (H) Other operational expenditures (\$)
- (f) Applications for Expanded FCI Capacity. Applicants who increase the power rating of an FSE or add an FSE to a site that is already generating FCI credits under the CFP must submit an application to Ecology to generate additional credits based on the increased power or number of FSEs. Applications must be received before December 31, 20295 [DD124] and do not extend the end date for the FCI crediting specified upon initial project approval in (c) of this subsection. The application must include the following elements.
 - (i) Updated number and type of FSE at the site.
 - (ii) Updated FCI charging capacity, nameplate power rating and effective simultaneous power rating for each FSE at the site.
 - (iii) The applicant must maintain records demonstrating that any new equipment added as a result of the expansion in capacity meet the requirements listed in this subsection.